

1652

RECEIVED

JUL 08 2002

TECH CENTER 1600/2900



/600

#13/8/02

07.10.02

RAW SEQUENCE LISTING

DATE: 06/10/2002

PATENT APPLICATION: US/09/903,770A

TIME: 16:26:03

Input Set : A:\203979.txt

Output Set: N:\CRF3\06102002\I903770A.raw

ENTERED

```

3 <110> APPLICANT: MOECKEL, BETTINA
4     FARWICK, MIKE
5     HERMANN, THOMAS
6     KREUTZER, CAROLINE
7     PFEFFERLE, WALTER
9 <120> TITLE OF INVENTION: NUCLEOTIDE SEQUENCES CODING FOR THE lysR1 GENE
11 <130> FILE REFERENCE: 203979US
13 <140> CURRENT APPLICATION NUMBER: 09/903,770A
14 <141> CURRENT FILING DATE: 2001-07-13
16 <160> NUMBER OF SEQ ID NOS: 5
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1311
22 <212> TYPE: DNA
23 <213> ORGANISM: Corynebacterium glutamicum
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (201)..(1109)
28 <223> OTHER INFORMATION:
30 <400> SEQUENCE: 1
31 acagcccagg ggccgttgag ggggaaaagc tgcgttccaa tggcagcacc aaattgcagg      60
33 gatagggcgg aacccatcac catcaacact gcagcggact gtttattcat gcccttgatt      120
35 attgccaaaag aaacctttta ggactagatc gaaaaacagc caactatagt taagtaatac      180
37 tgaacaattt tggaggtgtc gtg ctc aat ctc aac cgc tta cac atc ctg cag      233
38           Val Leu Asn Leu Asn Arg Leu His Ile Leu Gln
39           1           5           10
41 gaa ttc cac cgc ctg gga acg att aca gca gtg gcg gaa tcc atg aac      281
42 Glu Phe His Arg Leu Gly Thr Ile Thr Ala Val Ala Glu Ser Met Asn
43           15           20           25
45 tac agc cgc tct gcc atc tcc caa caa atg gcg ctg ctg gaa aaa gaa      329
46 Tyr Ser Arg Ser Ala Ile Ser Gln Gln Met Ala Leu Leu Glu Lys Glu
47           30           35           40
49 att ggt gtg aaa ctc ttt gaa aaa agc ggc cga aac ctc tac ttc aca      377
50 Ile Gly Val Lys Leu Phe Glu Lys Ser Gly Arg Asn Leu Tyr Phe Thr
51           45           50           55
53 gaa caa ggc gaa gtg ttg gcc tca gaa aca cat gcg atc atg gca gca      425
54 Glu Gln Gly Glu Val Leu Ala Ser Glu Thr His Ala Ile Met Ala Ala
55 60           65           70           75
57 gtc gac cat gcc cgc gca gcc gtt cta gat tcg ctg tct gaa gtg tcc      473
58 Val Asp His Ala Arg Ala Ala Val Leu Asp Ser Leu Ser Glu Val Ser
59           80           85           90
61 gga acg ctg aaa gtc acc tcc ttc caa tcc ctg ctg ttc acc ctt gcc      521
62 Gly Thr Leu Lys Val Thr Ser Phe Gln Ser Leu Leu Phe Thr Leu Ala

```

RAW SEQUENCE LISTING

DATE: 06/10/2002

PATENT APPLICATION: US/09/903,770A

TIME: 16:26:03

Input Set : A:\203979.txt

Output Set: N:\CRF3\06102002\I903770A.raw

```

63          95          100          105
65 ccg aaa gcc atc gcg cgc ctg acc gag aaa tac cca cac ctg caa gta      569
66 Pro Lys Ala Ile Ala Arg Leu Thr Glu Lys Tyr Pro His Leu Gln Val
67          110          115          120
69 gaa atc tcc caa cta gaa gtc acc gca gcg ctc gaa gaa ctc cgc gcc      617
70 Glu Ile Ser Gln Leu Glu Val Thr Ala Ala Leu Glu Glu Leu Arg Ala
71          125          130          135
73 cgc cgc gtc gac gtc gca ctc ggc gag gaa tac ccc gtg gaa gtc ccc      665
74 Arg Arg Val Asp Val Ala Leu Gly Glu Glu Tyr Pro Val Glu Val Pro
75 140          145          150          155
77 ctt gtt gag gcc agc att cac cgc gaa gtc ctc ttc gaa gac ccc atg      713
78 Leu Val Glu Ala Ser Ile His Arg Glu Val Leu Phe Glu Asp Pro Met
79          160          165          170
81 ctg ctc gtc acc cca gca agc ggc cca tac tct ggc ctc acc ctg cca      761
82 Leu Leu Val Thr Pro Ala Ser Gly Pro Tyr Ser Gly Leu Thr Leu Pro
83          175          180          185
85 gaa ctc cgc gac atc ccc atc gcc atc gat cca ccc gac ctt ccc gcg      809
86 Glu Leu Arg Asp Ile Pro Ile Ala Ile Asp Pro Pro Asp Leu Pro Ala
87          190          195          200
89 ggc gaa tgg gtc cat agg ctc tgc cgg cgc gcc ggg ttt gag ccc cgc      857
90 Gly Glu Trp Val His Arg Leu Cys Arg Arg Ala Gly Phe Glu Pro Arg
91          205          210          215
93 gtg acc ttt gaa acc agc gat ccc atg ctc caa gca cac ctc gtg cgt      905
94 Val Thr Phe Glu Thr Ser Asp Pro Met Leu Gln Ala His Leu Val Arg
95 220          225          230          235
97 agc ggc ttg gcc gtg aca ttt tcc ccc aca ctg ctc acc ccg atg ctg      953
98 Ser Gly Leu Ala Val Thr Phe Ser Pro Thr Leu Leu Thr Pro Met Leu
99          240          245          250
101 gaa agc gtg cac atc cag ccg ctg ccc ggc aac ccc acg cgc acg ctc      1001
102 Glu Ser Val His Ile Gln Pro Leu Pro Gly Asn Pro Thr Arg Thr Leu
103          255          260          265
105 tac acc gcg gtc agg gaa ggg cgc cag ggg cat cca gcc att aaa gct      1049
106 Tyr Thr Ala Val Arg Glu Gly Arg Gln Gly His Pro Ala Ile Lys Ala
107          270          275          280
109 ttt cga cga gcc ctc gcc cat gtg gcc aaa gaa tct tat ttg gag gct      1097
110 Phe Arg Arg Ala Leu Ala His Val Ala Lys Glu Ser Tyr Leu Glu Ala
111          285          290          295
113 cgt cta gta gag tgagttcttg tgagccttca gacaaatcat cgcccagtac      1149
114 Arg Leu Val Glu
115 300
117 tcgtcgttga cttcggcgca cagtacgcgc agctgatcgc acgtcgtgtg cgtgaggccg      1209
119 gcatctactc cgaagtcata ccgcacaccg ccaccgcaga cgatgtgcgc gctaaaaatg      1269
121 cagcagccct cgtcctttcc ggtggcccat cctccgtgta tg      1311
124 <210> SEQ ID NO: 2
125 <211> LENGTH: 303
126 <212> TYPE: PRT
127 <213> ORGANISM: Corynebacterium glutamicum
129 <400> SEQUENCE: 2
131 Val Leu Asn Leu Asn Arg Leu His Ile Leu Gln Glu Phe His Arg Leu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/903,770A

DATE: 06/10/2002

TIME: 16:26:03

Input Set : A:\203979.txt

Output Set: N:\CRF3\06102002\I903770A.raw

```

132 1           5           10           15
135 Gly Thr Ile Thr Ala Val Ala Glu Ser Met Asn Tyr Ser Arg Ser Ala
136           20           25           30
139 Ile Ser Gln Gln Met Ala Leu Leu Glu Lys Glu Ile Gly Val Lys Leu
140           35           40           45
143 Phe Glu Lys Ser Gly Arg Asn Leu Tyr Phe Thr Glu Gln Gly Glu Val
144           50           55           60
147 Leu Ala Ser Glu Thr His Ala Ile Met Ala Ala Val Asp His Ala Arg
148 65           70           75           80
151 Ala Ala Val Leu Asp Ser Leu Ser Glu Val Ser Gly Thr Leu Lys Val
152           85           90           95
155 Thr Ser Phe Gln Ser Leu Leu Phe Thr Leu Ala Pro Lys Ala Ile Ala
156           100          105          110
159 Arg Leu Thr Glu Lys Tyr Pro His Leu Gln Val Glu Ile Ser Gln Leu
160           115          120          125
163 Glu Val Thr Ala Ala Leu Glu Glu Leu Arg Ala Arg Arg Val Asp Val
164           130          135          140
167 Ala Leu Gly Glu Glu Tyr Pro Val Glu Val Pro Leu Val Glu Ala Ser
168 145           150           155           160
171 Ile His Arg Glu Val Leu Phe Glu Asp Pro Met Leu Leu Val Thr Pro
172           165           170           175
175 Ala Ser Gly Pro Tyr Ser Gly Leu Thr Leu Pro Glu Leu Arg Asp Ile
176           180           185           190
179 Pro Ile Ala Ile Asp Pro Pro Asp Leu Pro Ala Gly Glu Trp Val His
180           195           200           205
183 Arg Leu Cys Arg Arg Ala Gly Phe Glu Pro Arg Val Thr Phe Glu Thr
184           210           215           220
187 Ser Asp Pro Met Leu Gln Ala His Leu Val Arg Ser Gly Leu Ala Val
188 225           230           235           240
191 Thr Phe Ser Pro Thr Leu Leu Thr Pro Met Leu Glu Ser Val His Ile
192           245           250           255
195 Gln Pro Leu Pro Gly Asn Pro Thr Arg Thr Leu Tyr Thr Ala Val Arg
196           260           265           270
199 Glu Gly Arg Gln Gly His Pro Ala Ile Lys Ala Phe Arg Arg Ala Leu
200           275           280           285
203 Ala His Val Ala Lys Glu Ser Tyr Leu Glu Ala Arg Leu Val Glu
204           290           295           300

```

207 <210> SEQ ID NO: 3

208 <211> LENGTH: 383

209 <212> TYPE: DNA

210 <213> ORGANISM: Corynebacterium glutamicum

212 <400> SEQUENCE: 3

```

213 ttccaatccc tgctgttcac ccttgccccg aaagccatcg cgcgcttgac cgagaaatac      60
215 ccacacctgc aagtagaaat ctcccaacta gaagtcaccg cagcgctcga agaactccgc      120
217 gcccgcgcgc tcgacgtcgc actcggcgag gaatacccg tggaagtccc ccttggtgag      180
219 gccagcattc accgcgaagt cctcttcgaa gaccccatgc tgctcgtcac cccagcaagc      240
221 ggcccatact ctggcctcac cctgccagaa ctccgcgaca tccccatcgc catcgatcca      300
223 ccgacattc ccgcggcgga atgggtccat aggtctgccc ggcgcgccgg gtttgagccc      360
225 cgcgtgacct ttgaaaccag cga                                     383

```

RAW SEQUENCE LISTING

DATE: 06/10/2002

PATENT APPLICATION: US/09/903,770A

TIME: 16:26:04

Input Set : A:\203979.txt

Output Set: N:\CRF3\06102002\I903770A.raw

228 <210> SEQ ID NO: 4
229 <211> LENGTH: 20
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: synthetic DNA
236 <400> SEQUENCE: 4
237 ttccaatccc tgctgttcac 20
240 <210> SEQ ID NO: 5
241 <211> LENGTH: 20
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: synthetic DNA
248 <400> SEQUENCE: 5
249 gtgacctttg aaaccagcga 20

VERIFICATION SUMMARY

DATE: 06/10/2002

PATENT APPLICATION: US/09/903,770A

TIME: 16:26:05

Input Set : A:\203979.txt

Output Set: N:\CRF3\06102002\I903770A.raw